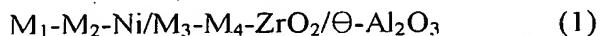


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ABSTRACT

The present invention relates to a modified $\Theta\text{-Al}_2\text{O}_3$ -supported nickel reforming catalyst and its use for producing synthesis gas from natural gas, more specifically to a nickel reforming catalyst expressed by the following formula 1, having improved coke resistance, high-temperature catalysis stability and catalytic activity, which is prepared by coating nickel or mixture of nickel and cocatalyst ($M_1\text{-}M_2\text{-Ni}$) on a $\Theta\text{-Al}_2\text{O}_3$ support modified with metal ($M_3\text{-}M_4\text{-ZrO}_2/\Theta\text{-Al}_2\text{O}_3$), and its use for producing synthesis gas from natural gas through steam reforming, oxygen reforming or steam-oxygen reforming,



wherein M_1 is an alkali metal; each of M_2 and M_3 is an alkaline earth metal; and M_4 is a III B element or a lanthanide.